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Wang et al. Appl. No. 10/015,887

Atty. Docket: 1875.1260001

Amendments to the Claims

1. (Canceled)

2. (Currently Amended) A differential amplifier, comprising:

- a differential input capable of receiving a differential signal;
- a first differential pair coupled to said differential input;
- a second differential pair, coupled to said differential input, and connected in parallel with said first differential pair at a differential output;
- a differential offset circuit, coupled within a differential signal path between said differential input and said second differential pair, and capable of level shifting said differential signal from a first level to a second level; and

a differential switch circuit, coupled to said first differential pair and said second differential pair, and capable of controlling a first current flow to said first differential pair and a second current flow to said second differential pair.

- 3. (Canceled)
- 4. (Canceled)

V 5. (Currently Amended) A differential amplifier, comprising:

- a differential input capable of receiving a differential signal;
- a first differential pair coupled to said differential input;

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a second differential pair, coupled to said differential input, and connected in parallel with said first differential pair at a differential output; and

a differential switch circuit, coupled <u>outside a differential signal path</u> to said first differential pair and <u>outside said differential signal path</u> to said second differential pair, and capable of controlling a first current flow to said first differential pair and a second current flow to said second differential pair. <u>pair</u>; and

a differential offset circuit, coupled between said differential input and said second differential pair, and capable of level shifting said differential input signal from a first level to a second level.

6. (Canceled)

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(Original) The differential amplifier of claim 8, wherein said differential switch circuit comprises:

a first switch MOSFET coupled between said first differential pair and a current source; and

a second switch MOSFET coupled between said second differential pair and said current source.

8. (Canceled)

4 9. (Currently Amended) The differential amplifier of claim 8 5, wherein said differential switch circuit changes said first current flow relative to said second current flow, based on a

comparison between a common mode voltage of said differential input signal and a reference voltage.

- (Currently Amended) The differential amplifier of claim § 5, wherein said differential switch circuit increases said first current flow relative to said second current flow, when a common mode voltage of said differential input signal approaches said first power supply voltage.
- Switch circuit decreases said first current flow relative to said second current flow, when a common mode voltage of said differential input signal approaches said second power supply voltage.

12-18. (Canceled)

- 7 19. (Currently Amended) A method of extending an input signal range of a component that receives the an input signal, comprising the steps of:
 - (1) level shifting a voltage of the input signal;
 - (2) processing said level shifted voltage within the component; and
 - (3) selecting a subcomponent, from a plurality of subcomponents within the component, to process said level shifted voltage;

wherein the level shifting is performed by a first circuit within a signal path of the input signal; and

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wherein the selecting is performed by a second circuit outside the signal path of the input signal.

- (Currently Amended) A method of extending an input signal range of a component that receives the an input signal, comprising the steps of:
 - (1) level shifting a voltage of the input signal;
 - (2) processing said level shifted voltage within the component; and
 - (3) responding to a comparison between a common mode voltage of the input signal and a reference voltage to select a subcomponent from a plurality of subcomponents within the component to process said level shifted voltage. voltage;

wherein the level shifting is performed by a first circuit within a signal path of the input signal; and

wherein the selecting is performed by a second circuit outside the signal path of the input signal.

9 21. (Previously Presented) The method of claim 19, wherein step (2) comprises the step of: amplifying said level shifted voltage within the component.

This listing of claims will replace all prior versions, and listings of claims in the application.

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